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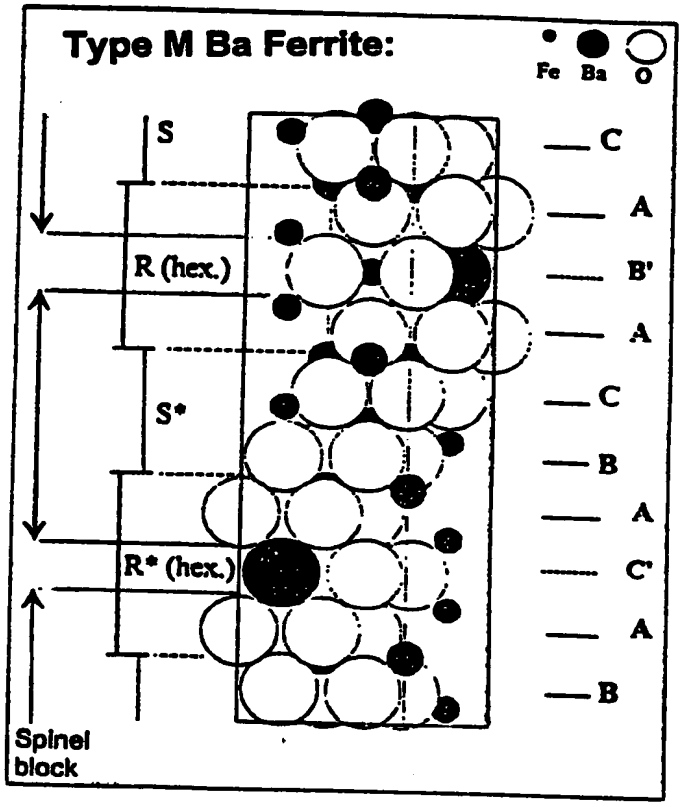

Fig. 1

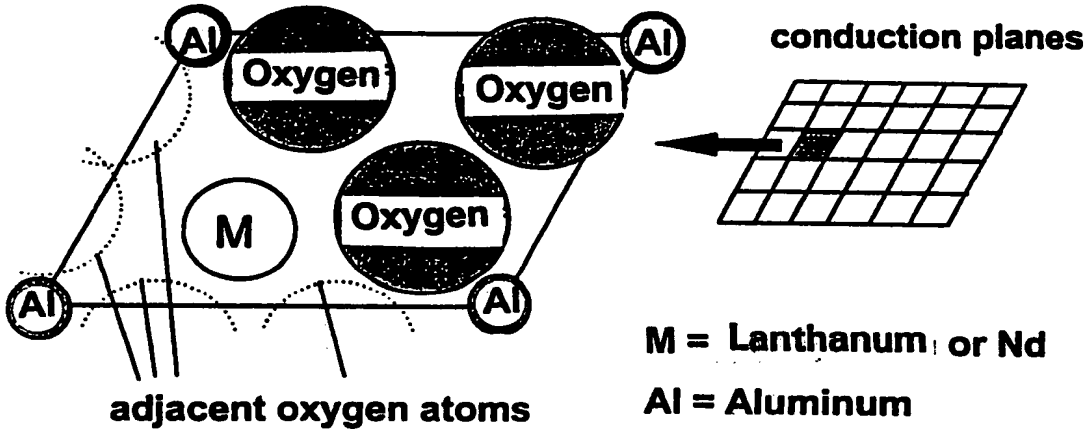
Al
Oxygen
Oxygen
Al
M
Oxygen
Al
Al
conduction planes
adjacent oxygen atoms
M = Lanthanum or Nd
Al = Aluminum

Fig. 2

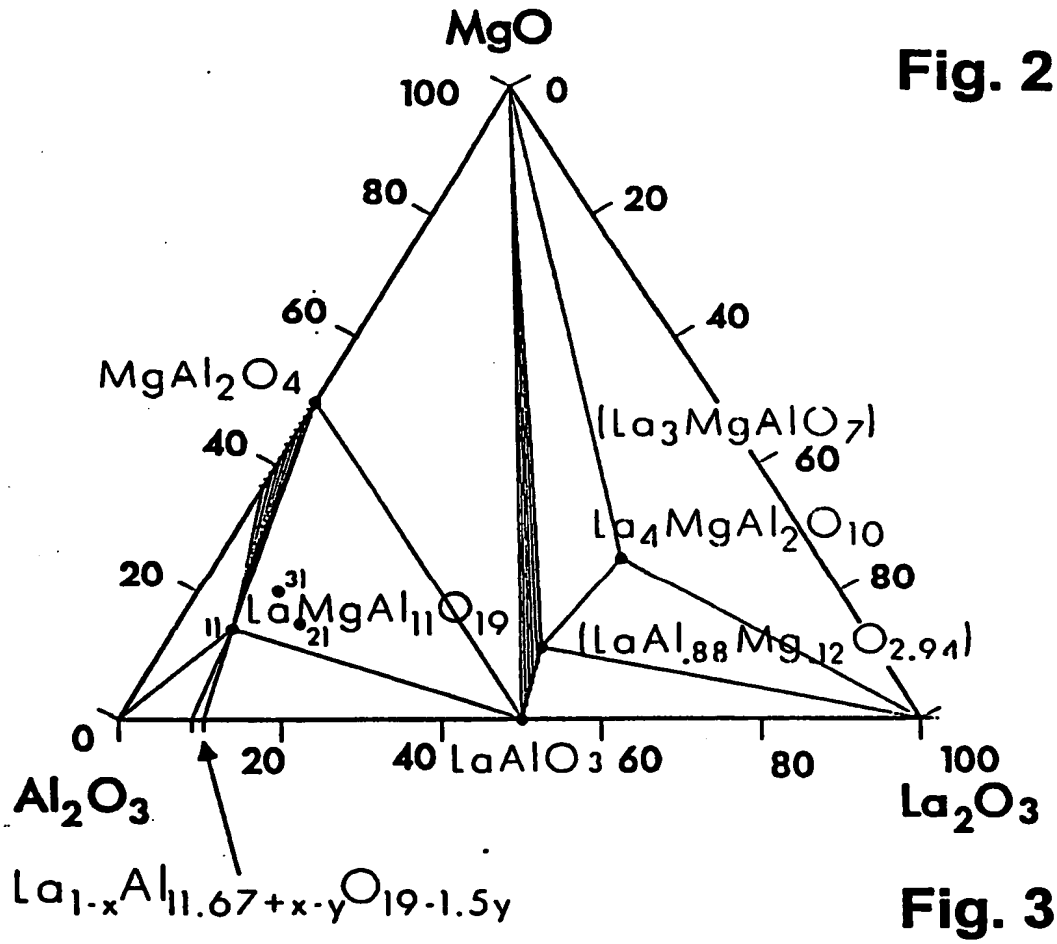
MgO
100
0
80
20
60
40
$MgAl_2O_4$
40
(La_3MgAlO_7)
60
$La_4MgAl_2O_{10}$
20
80
$La_{21}^{31}MgAl_{11}O_{19}$
11
$(LaAl_{.88}Mg_{.12}O_{2.94})$
0
20
40
$LaAlO_3$
60
80
100
Al_2O_3
La_2O_3
$La_{1-x}Al_{11.67+x-y}O_{19-1.5y}$

Fig. 3

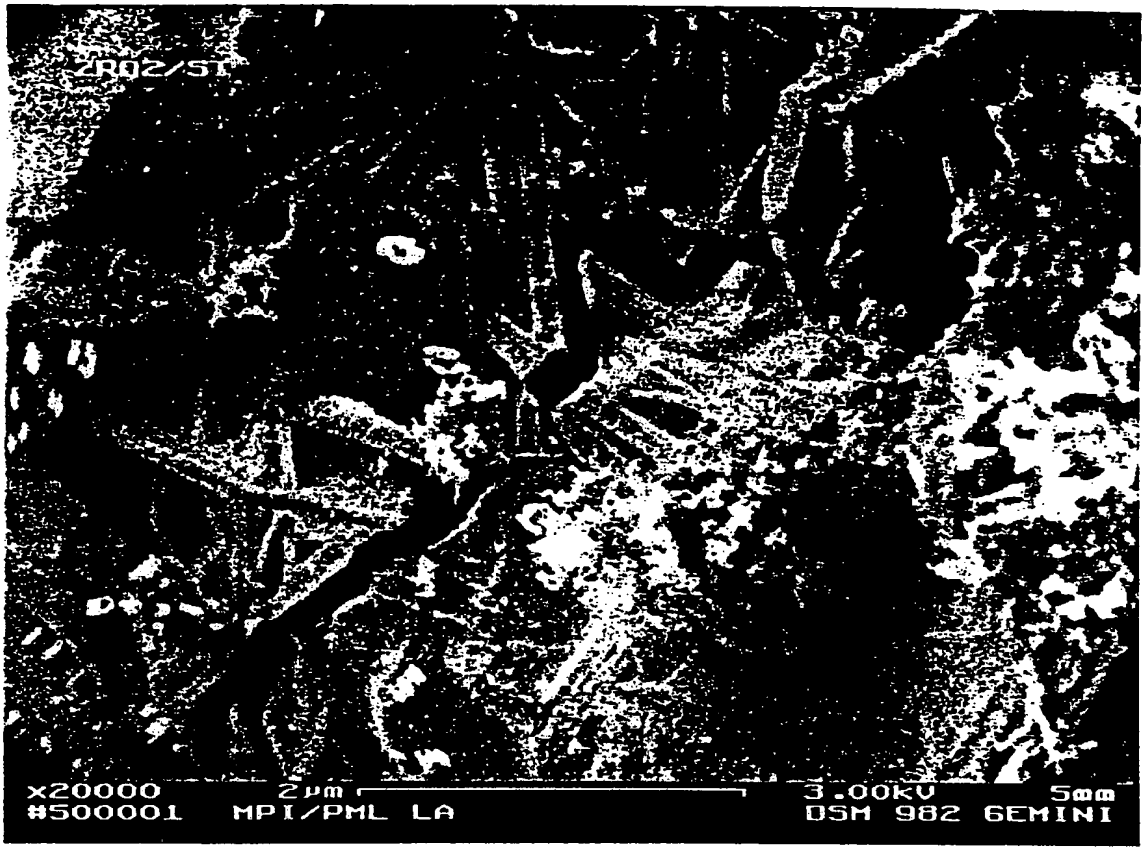

Fig. 4

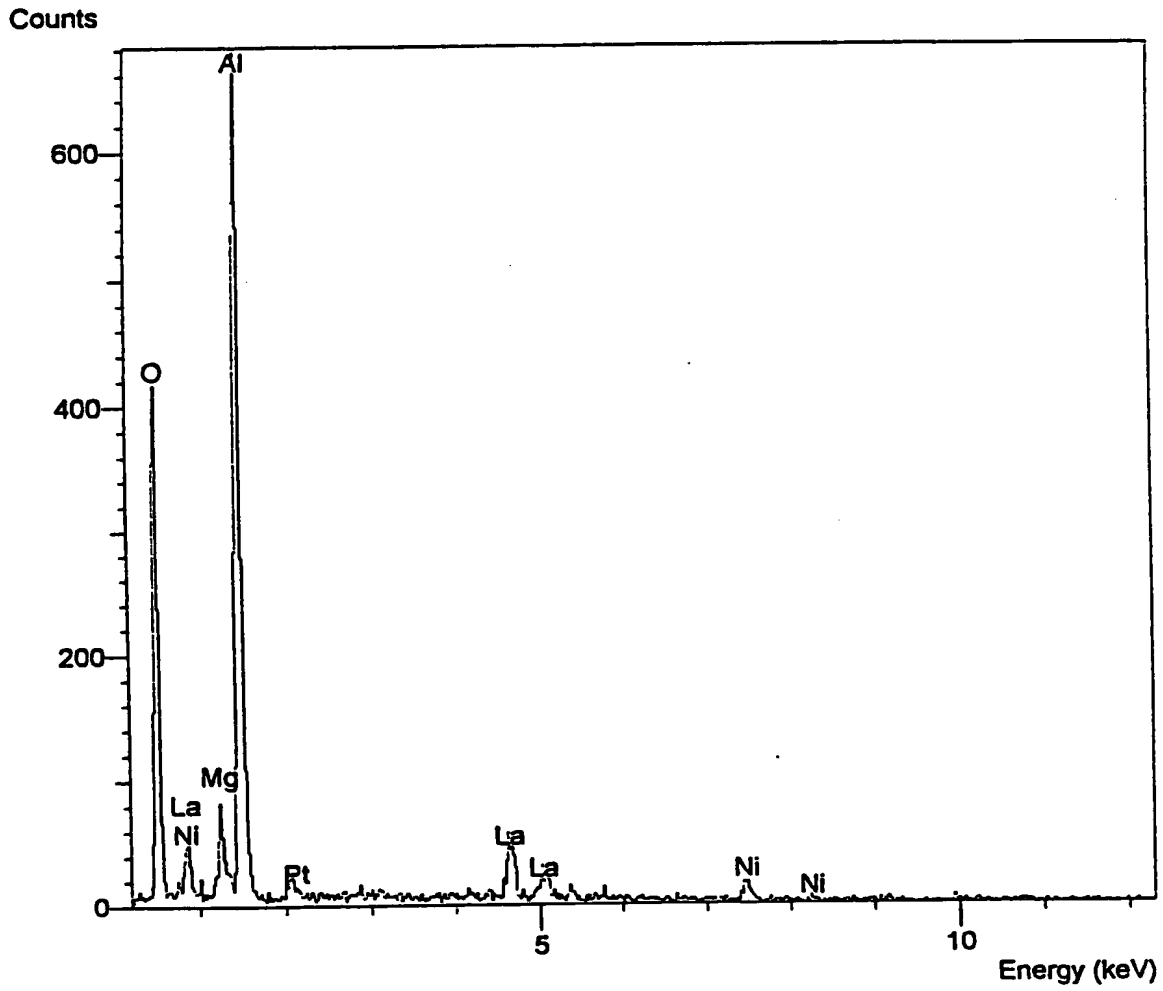

Fig. 5

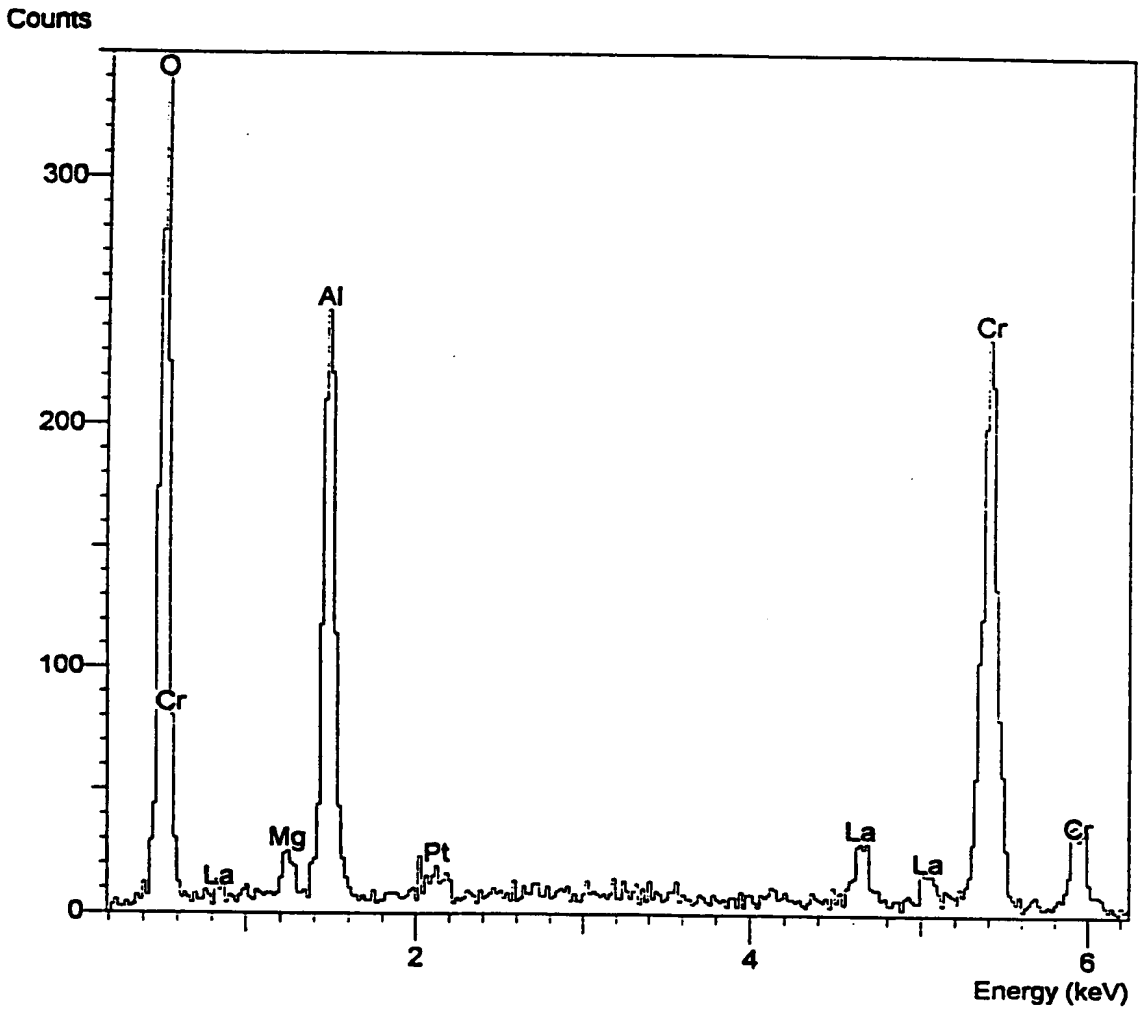

Fig. 6

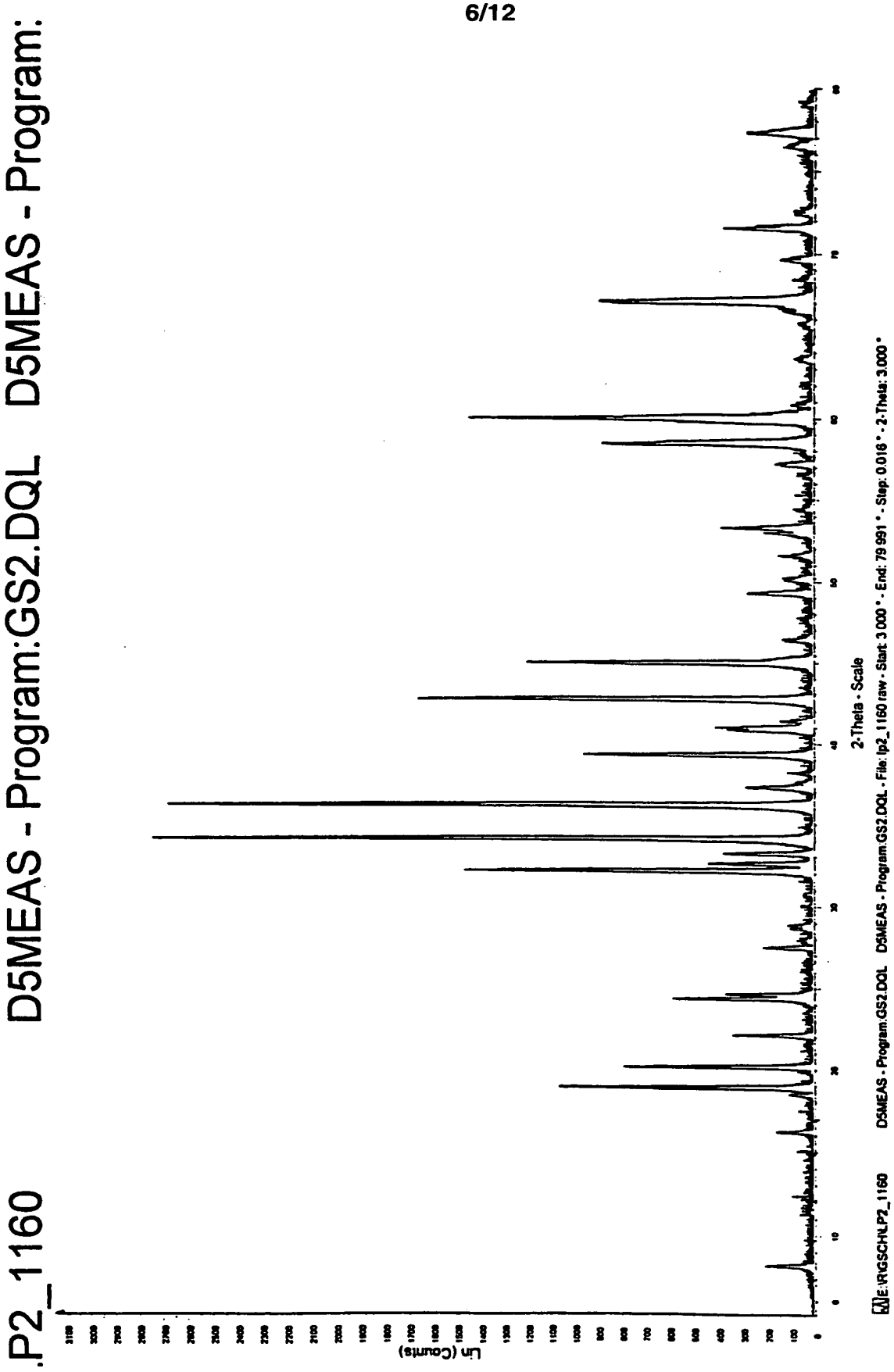
.P2_1160 D5MEAS - Program:GS2.DQL D5MEAS - Program:
Ln (Counts)
2-Theta - Scale
E:\RYGSCH\LP2_1160 D5MEAS - Program:GS2.DQL D5MEAS - Program:GS2.DQL - File: lp2_1160.raw - Start: 3.000 ° - End: 79.991 ° - Step: 0.016 ° - 2-Theta: 3.000 °
Operations: Background 1.000,1.000 | Import

Fig. 7

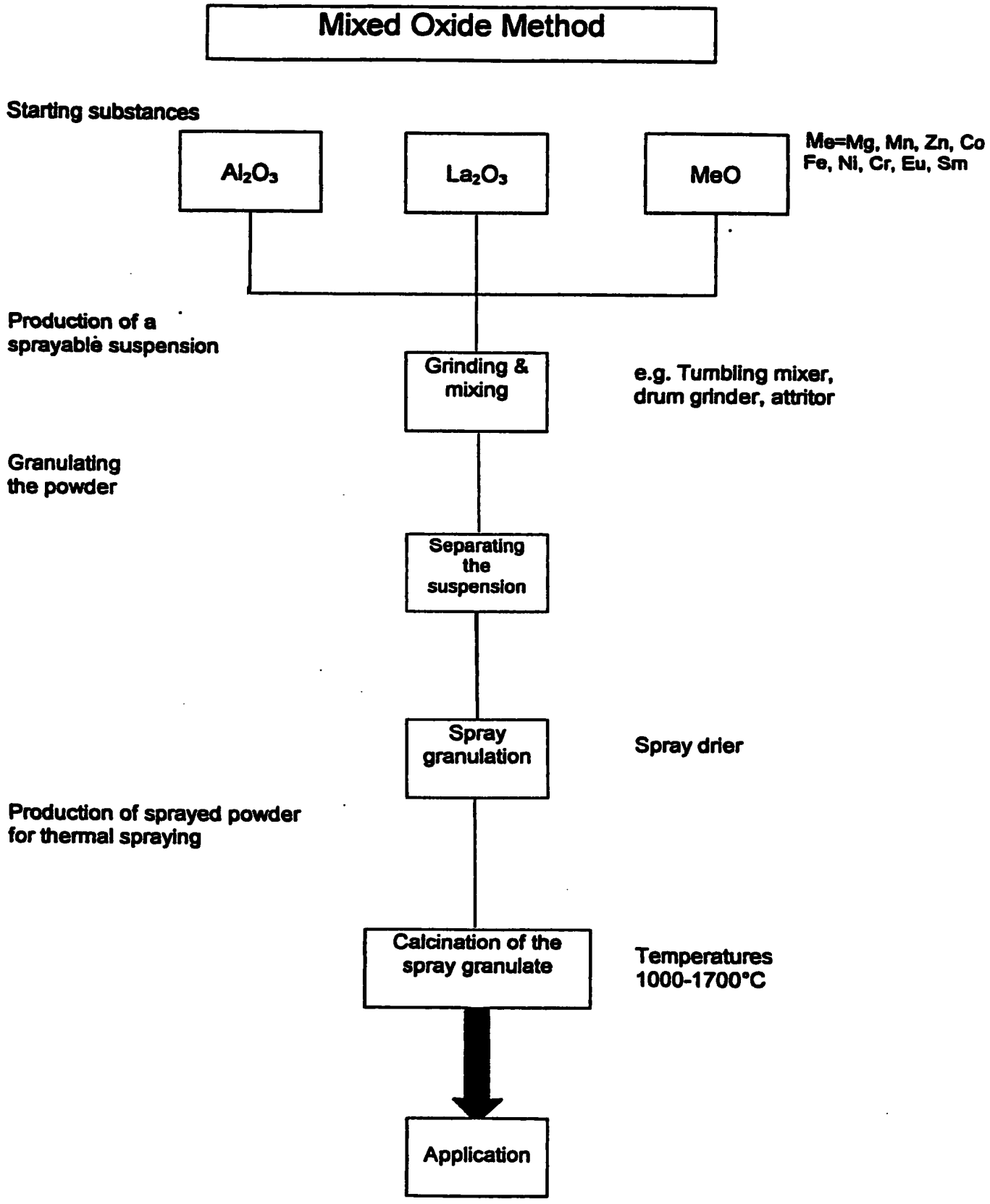
Mixed Oxide Method
Starting substances
Al_2O_3
La_2O_3
MeO
Me=Mg, Mn, Zn, Co
Fe, Ni, Cr, Eu, Sm
Production of a sprayable suspension
Grinding & mixing
e.g. Tumbling mixer, drum grinder, attritor
Granulating the powder
Separating the suspension
Spray granulation
Spray drier
Production of sprayed powder for thermal spraying
Calcination of the spray granulate
Temperatures 1000-1700°C
Application

Fig. 8

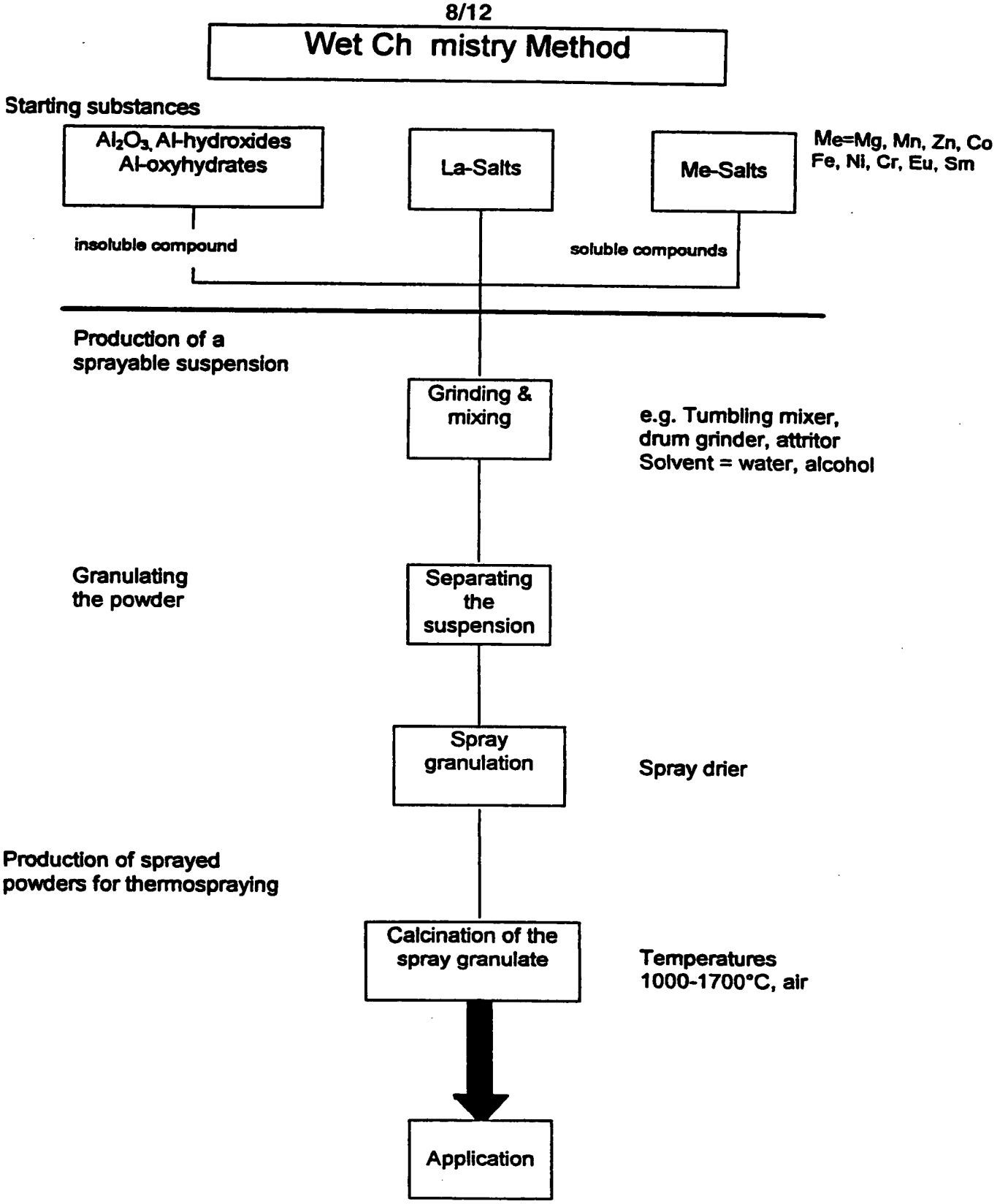
Wet Ch mistry Method
Starting substances
Al_2O_3, Al-hydroxides
Al-oxyhydrates
La-Salts
Me-Salts
Me=Mg, Mn, Zn, Co
Fe, Ni, Cr, Eu, Sm
insoluble compound
soluble compounds
Production of a
sprayable suspension
Grinding &
mixing
e.g. Tumbling mixer,
drum grinder, attritor
Solvent = water, alcohol
Granulating
the powder
Separating
the
suspension
Spray
granulation
Spray drier
Production of sprayed
powders for thermospraying
Calcination of the
spray granulate
Temperatures
1000-1700°C, air
Application

Fig. 9

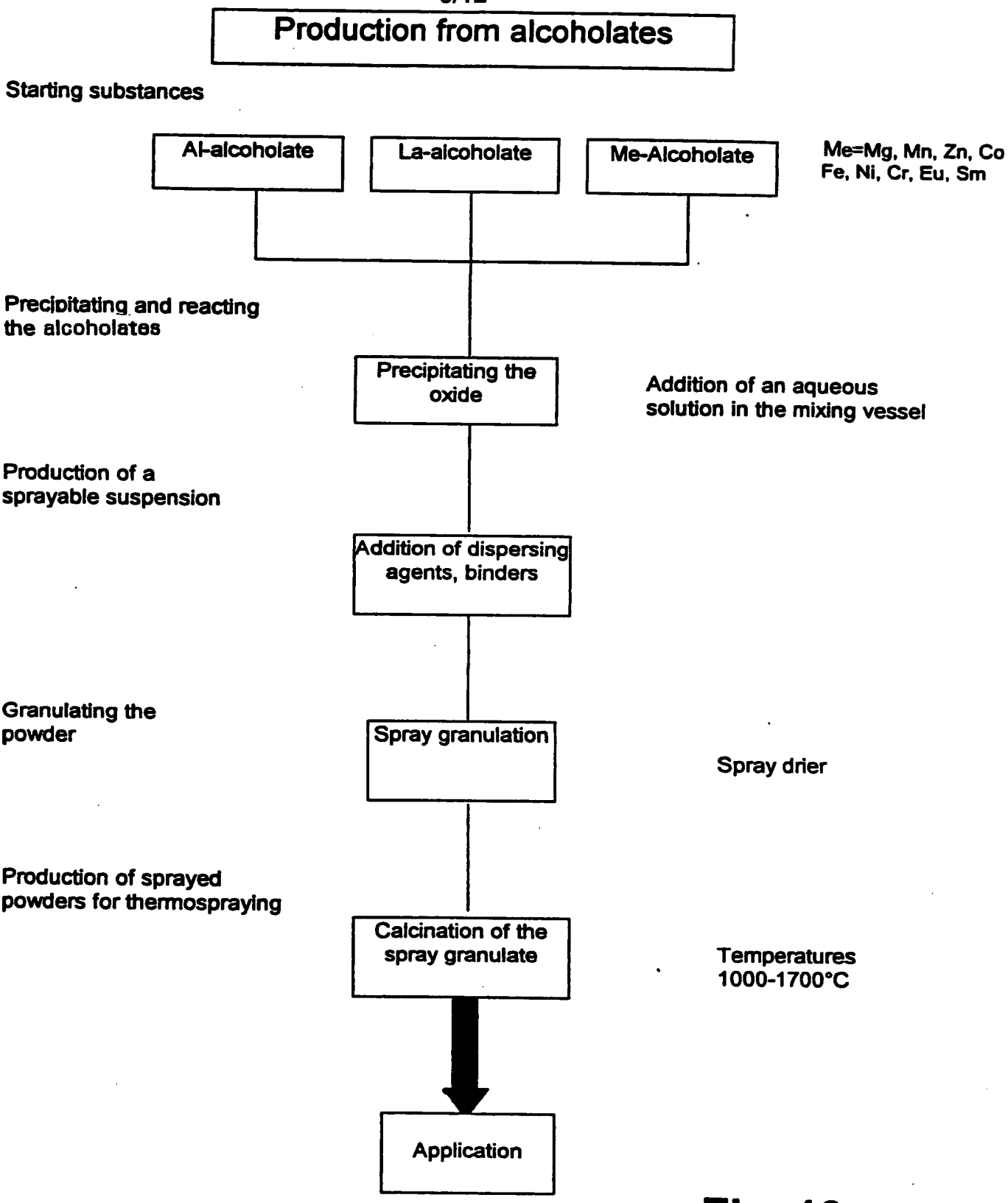
Production from alcoholates
Starting substances
Al-alcoholate
La-alcoholate
Me-Alcoholate
Me=Mg, Mn, Zn, Co
Fe, Ni, Cr, Eu, Sm
Precipitating and reacting the alcoholates
Precipitating the oxide
Addition of an aqueous solution in the mixing vessel
Production of a sprayable suspension
Addition of dispersing agents, binders
Granulating the powder
Spray granulation
Spray drier
Production of sprayed powders for thermospraying
Calcination of the spray granulate
Temperatures 1000-1700°C
Application

Fig. 10

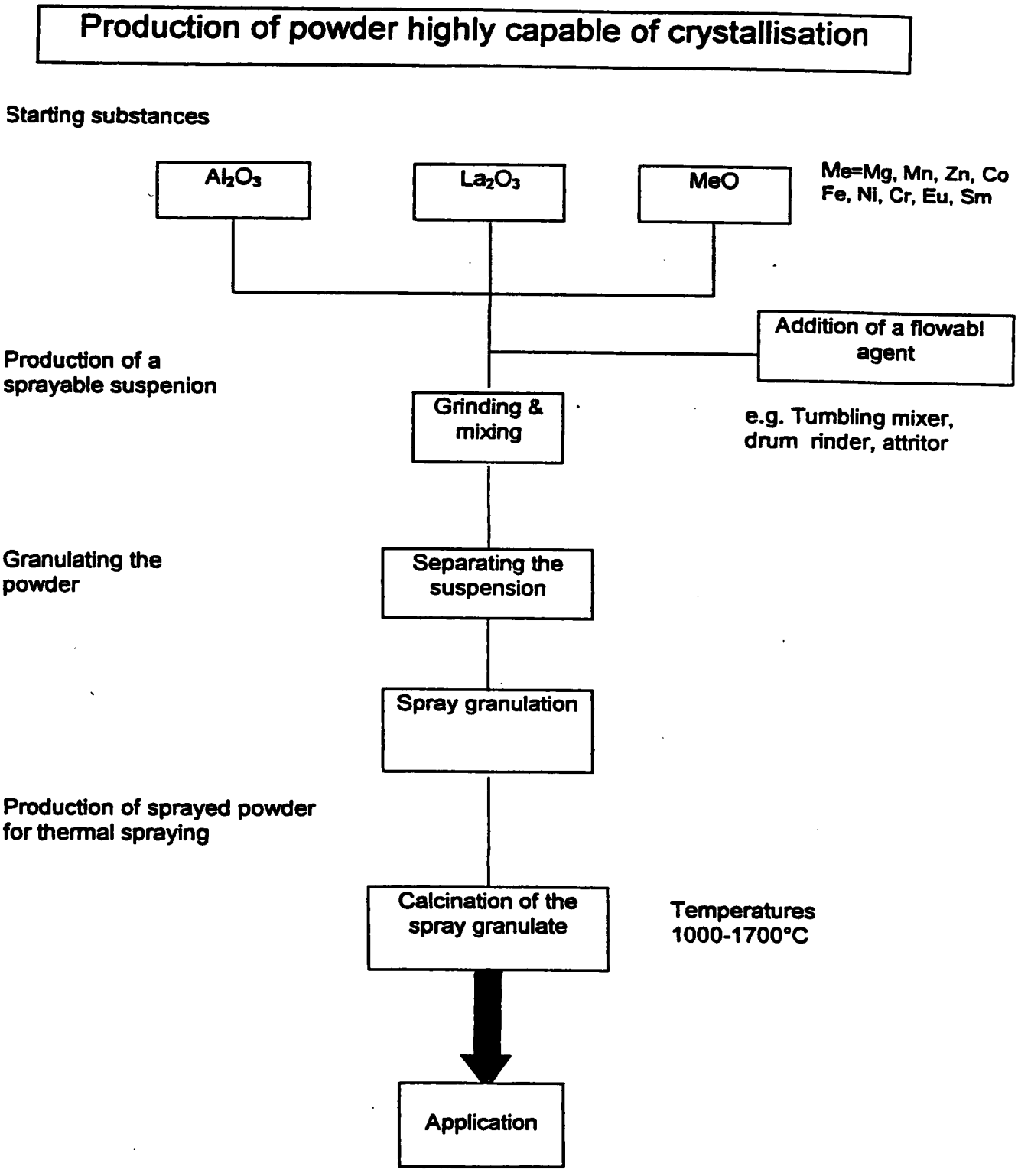
Production of powder highly capable of crystallisation
Starting substances
Al_2O_3
La_2O_3
MeO
Me=Mg, Mn, Zn, Co
Fe, Ni, Cr, Eu, Sm
Addition of a flowabl agent
Production of a sprayable suspenion
Grinding & mixing
e.g. Tumbling mixer, drum rinder, attritor
Granulating the powder
Separating the suspension
Spray granulation
Production of sprayed powder for thermal spraying
Calcination of the spray granulate
Temperatures 1000-1700°C
Application

Fig. 11

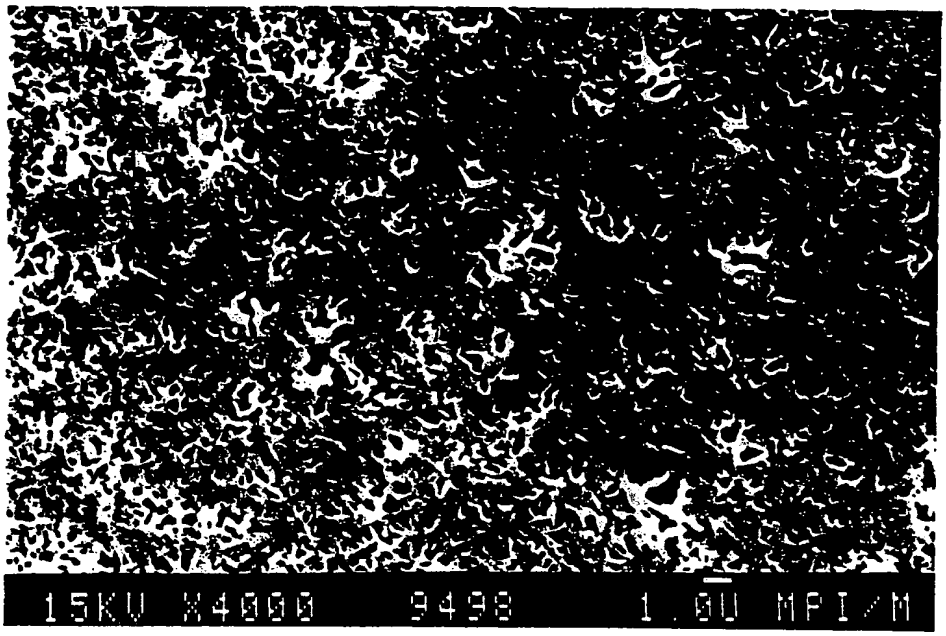

Fig. 12

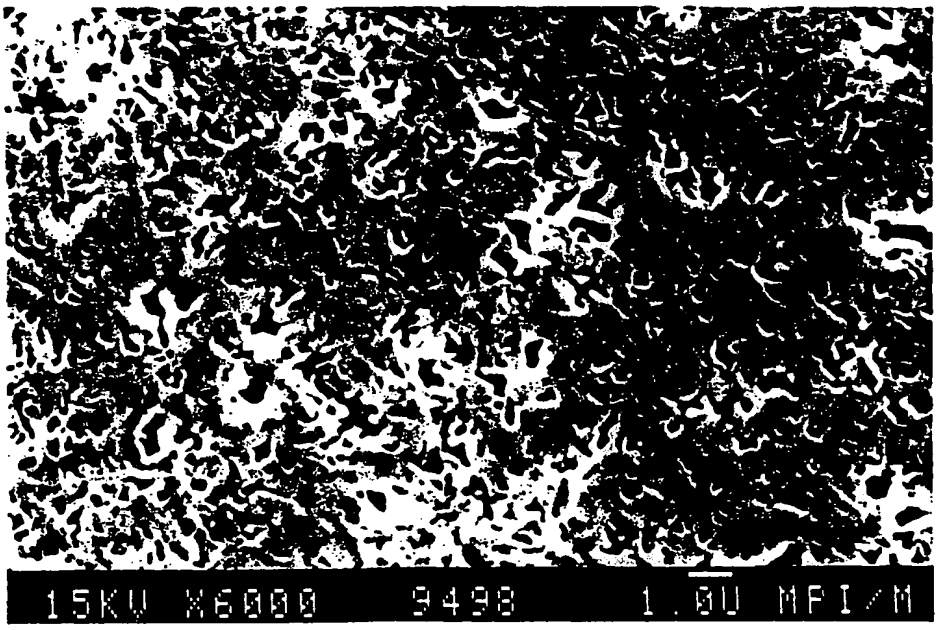

Fig. 13

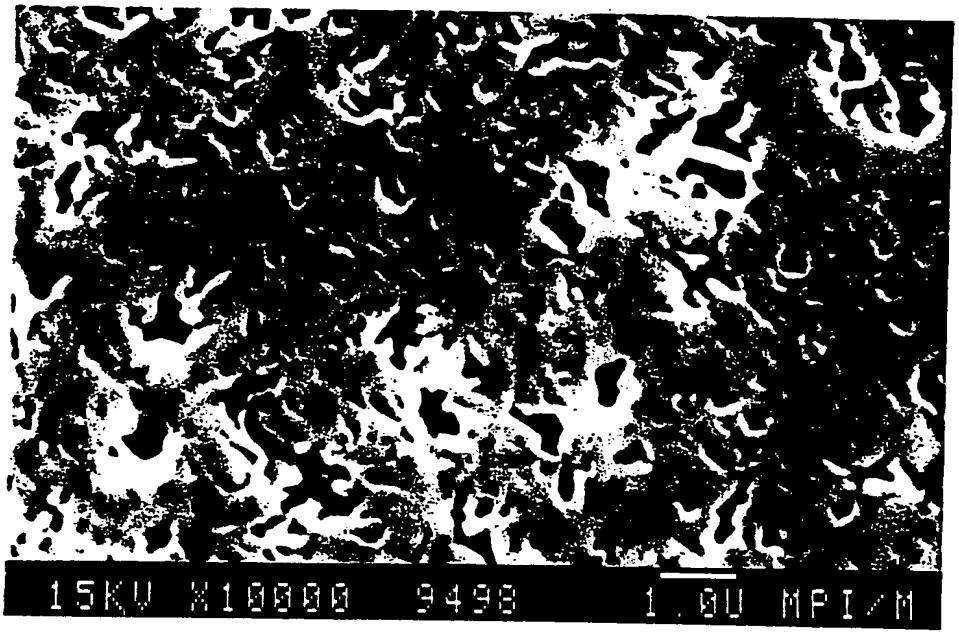

Fig. 14

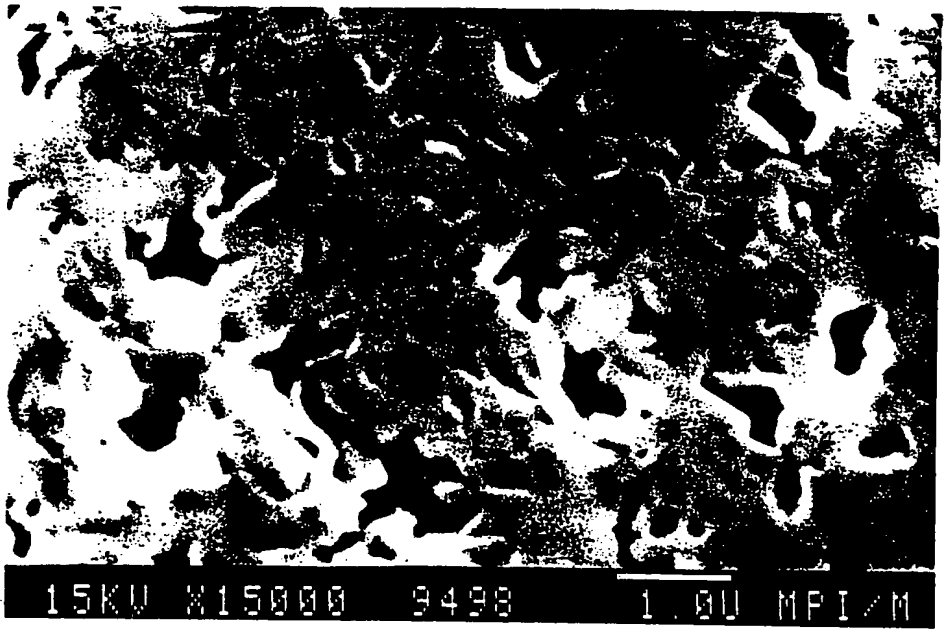

Fig. 15